

Claims

1. A tooth bleaching composition free of a hydrocarbon humectant comprising a peroxide compound from about 1-30% by weight, water from about 30-60% by weight and polyoxyethylene-polyoxypropylene non-ionic surfactant gelling agent from about 25 to 30% by weight and an inhibitor of catalase from about 0.1 to 2% by weight,
2. The tooth bleaching composition according to claim 1, which includes a mixed metal chelating system comprised of:
 - a) an organic chelating agent
 - b) a condensing phosphate chelating agent
 - c) a metal precipitating agent.
3. The tooth bleaching composition according to claim 1, which includes a mixed surfactant system comprising an anionic surfactant and a non-ionic surfactant.
4. The tooth bleaching composition according to claim 1, which includes an inhibitor of catalase.
5. The tooth bleaching composition according to claim 1 wherein the peroxide containing compound is hydrogen peroxide.
6. The tooth bleaching composition according to claim 1 wherein the peroxide containing compound is carbamide peroxide.
7. The tooth bleaching composition according to claim 1 wherein the carrier of peroxide is water.
8. The tooth bleaching composition according to claim 1 wherein the gelling agent is polyoxyethylene-polyoxypropylene non-ionic surfactant.
9. The tooth bleaching composition according to claim 2 wherein the organic chelating agent is 1-hydroxyethylidene-1,1-diphosphonic acid consisting of about 0.25% to 5% by weight of the composition.
10. The tooth bleaching composition according to claim 2 wherein the condensing phosphate chelating agent is sodium pyrophosphate, sodium triphosphate, trisodium phosphate or a combination thereof comprising about 0.25 to 2% by weight of the composition.
11. The tooth bleaching composition according to claim 2 wherein the metal precipitating agent is sodium fluoride comprising about 0.1 to 1% of the composition.
12. The tooth bleaching composition according to claim 3 wherein the anionic surfactant is sodium lauryl sulfate comprising about 0.5 to 2.5% of the composition
13. The tooth bleaching composition according to claim 3 wherein the non-ionic surfactant is Tween 20 comprising about 0.5 to 3% of the composition.
14. The method according to claim 1, further including placing the composition in a dental splint prior to applying the composition to the tooth surface.

15. The method according to claim 1, by including applying the composition onto the tooth surface then applying the tray to prevent contact between the lips and the gel.
16. The method according to claim 1, by including isolating the lips with a cheek retractor, applying a bioadhesive composition onto the gums and applying the whitening composition onto the teeth.
17. The method according to claim 1, by including applying the composition to a toothbrush and contacting the tooth surfaces.
18. The method of whitening teeth including the following steps to protect the lips, the gingiva and other soft tissues:by
 - a. applying the bioadhesive material to the gums
 - b. applying the peroxide composition to the teeth
 - c. applying a flexible film which does not react with the peroxide composition in contact with the bioadhesive material and the peroxide composition.
 - d. Molding the flexible film to cover the surfaces of the teeth to prevent contact between the peroxide composition and the lips, tongue and other soft tissues of the mouth.